1887MNRAS..47..432T

Occultation of α Tauri. 1887, March 2. By G. L. Tupman.

Notwithstanding the daylight, the Moon's dark limb was plainly visible. *Aldebaran* was very bright and flaring, and hung a long time on the limb without being projected on it more than half of its apparent diameter, which was $10''$ or $15''$, the reddish colour being very remarkable. By the click of the armature of the transit-clock-relay, at 50^s the star suddenly waned, but remained conspicuous until 51^s, the light lingering, at less than one-half of its original intensity, for fully one second of time. The point of disappearance was on the dark limb, well clear of the terminator.

Having placed a wire tangent to the Moon's bright limb at the calculated point of reappearance, the star was seen to re-appear instantaneously. It was very much less bright at the bright limb than it had before appeared. Watched for 30 seconds there was no further increase of its light. It hung on the limb and was fairly bisected by the latter for a considerable time.

Achromatic of $4\frac{1}{2}$ inches aperture, power 66.

	Local Sid. Time. h m s	G.M.T. h m s
Disapp. . . .	4 28 39·5*	5 49 11·6
Reapp. . . .	4 40 33·4	6 1 3·6

The occultation was observed by Mr. E. B. Knobel at Bocking, who remarks:—

"The star *glided out* (at the dark limb near the terminator). It did not *snap out* as usual, but there was an appreciable time in its disappearance; it was not an instantaneous phenomenon. The observation was good.

"The reappearance (at the bright limb) seemed instantaneous, but the observation was not quite so good as the immersion. Time between observations 9 minutes 30 seconds."

Sextant Observations of Comet a, 1887, on board the ship "British Merchant." By Captain E. J. Molony.

(*Communicated by Captain H. Toynbee.*)

1887, *January* 21.—Lat. 28° 17′ S. Long. 21° 25′ W.

At 8 P.M. saw for the first time a comet; a long slightly curved tail, originating in a point towards the Sun, and stretching for $18\frac{1}{2}°$ towards the nearest (smallest) Magellan Cloud, from which its visible termination is distant 18°. As the comet is very ill defined and sky cloudy the following distances are approximate. G.M.T. $10^h\ 11^m$:—

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* Corresponding to the recorded 50^s by the clock.

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1887MNRAS..47..432T

	°	′
Canopus from head of Comet	75	10
a Crucis „ „ „	67	58
Rigel „ „ „	104	48

January 22.—Lat. 27° 36′ S. Long. 21° 44′ W. G.M.T. $10^h\ 27^m$. Comet more indistinct. Approximate distances of point:—

	°	′
Canopus	73	50
a Crucis	66	38
a Arietis	91	48

January 25.—Lat. 23° 4′ S. Long. 24° 27′ W. G.M.T. $10^h\ 37^m$. Comet visible but faint. Approximate distances:—

	°	′
From Canopus	66	10
„ *a* Crucis	66	0
„ Rigel	90	30

On the Inclinations of Cometary Orbits. By W. H. S. Monck.

Mr. Chambers in his *Handbook of Descriptive Astronomy* has tabulated the computed cometary orbits up to the year 1876, in which year the last edition of his well-known book was published. He arrives at the conclusion that there is "a decided disposition in the orbits to congregate in and around a plane inclined 50° to the ecliptic." His figures, I think, hardly bear out this result, though on dividing the inclinations into intervals of 10° the largest number appears in the interval between 40° and 50°. But the comets whose orbits are inclined at angles of 70° to 90° amount to sixty-seven, while those whose orbits are inclined at angles of 10° to 30° number only forty-three, both being equally removed from the supposed median plane at 50°.

It occurred to me to examine the orbits of comets which appeared since the publication of Mr. Chambers's List, and I found that the tendency towards orbits inclined at angles of over 50° became much more marked. Many of the earlier orbits being unreliable, however, I thought it best, instead of simply adding the later comets to Mr. Chambers's Table, to tabulate the inclinations of those which have appeared since A.D. 1650, omitting all which are known or believed to be identical. Such a table of course involves some uncertainties, but I believe the following will be found substantially correct:—

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